



BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

IN RE APPLICATION OF: VAN DEN DUNGEN et al.  
SERIAL NO. : 09/890,486  
FILED : December 28, 2001  
TITLE : APPARATUS FOR MANUFACTURING CO-  
EXTRUDED FOOD PRODUCTS AND METHOD  
FOR MANUFACTURING A CO-EXTRUDED  
FOOD PRODUCT  
Group/A.U. : 1761  
Examiner : Drew E. BECKER  
Conf. No. : 1769  
Docket No. : P06504US0

Mail Stop Appeal Brief - Patents  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**APPEAL BRIEF**

Dear Sir:

This is an appeal from the final rejection of claims 47-57 dated May 3, 2004.

I. Real Party In Interest:

The real party in interest of the instant appeal is Townsend Engineering Co., an Iowa corporation, having an address of 2425 Hubbell Avenue, Des Moines, IA 50317.

II. Related Appeals and Interferences:

There are no related appeals or interferences.


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Timothy J. Zarley

### III. Status of the Claims:

Presently, claims 47-57 are pending in this application and appear as Appendix A of this brief.

### IV. Status of Amendments:

Presently, there are no amendments pending in this application.

### V. Summary of Invention:

The present invention is directed towards a method of manufacturing a co-extruded food product such as sausage. The first step of the method requires co-extruding a continuous string of the food product with a substantially uniform collagen layer. As the food product is being extruded, the collagen layer is subjected to a coagulating treatment to obtain the final co-extruded food product. The food product is then separated into separate units, such as individual sausage links, which are then subjected to a coagulation treatment.

### VI. Issues

The Examiner has rejected claims 47, 48 and 52-55 under 35 U.S.C. § 103(a) as being unpatentable over International Publication No. WO 99/13729 in view of International Publication No. WO 93/12660. Additionally, the Examiner has rejected claim 57 under 35 U.S.C. § 112 for being indefinite and under 35 U.S.C. § 101 for being an improper definition of a process. A first issue is whether such a combination of art makes out a prima facie case of obviousness where there is no teaching or suggestion of the combination. A second issue is whether a claim is indefinite when it particularly

points out and distinctly claims the subject matter regarded as the invention.

#### VII. Grouping of the Claims:

Applicant requests that the claims be grouped as follows: Group I for claims 47-56 and Group II for claim 57. Accordingly, the claims do not stand and fall together.

#### VIII. Argument

##### A. Description of the Prior Art

###### 1. International Publication No. WO 93/12660

International Publication No. WO 93/12660 (hereafter "WO 93/12660") discloses a method of making a co-extruded food product such as sausage. Specifically, WO 93/12660 teaches co-extruding a string of food product with a collagen layer while subjecting the collagen layer to a coagulation treatment to obtain a final extruded food product. (page 4, line 2 through page 5, line 14). WO 93/12660 fails to teach subjecting the separate units to a coagulation treatment after separating the string of co-extruded food product into separate units.

###### 2. International Publication No. WO 99/13729

International Publication No. WO 99/13729 (hereafter "WO 99/13729") discloses a transporting device for food products. WO 99/13729 does not teach a method of preparing sausage; however, WO 99/13729 sets forth a device in which sausage is prepared. As shown in Fig. 1, a sausage preparing device 1 has a transporting device 4 that transports the food product through processing housings 5-7 and 9. (page 12, lines 9-21). As stated in the specification, the third processing housing 7 subjects the food product to a "taste-improving

environment", such as liquid smoke. (page 12, lines 34-38). WO 99/13729 fails to teach subjecting a continuous string of extruded food product to any sort of coagulation treatment.

B. Argument In Support of Reversal

1. There Is No Teaching or Suggestion to  
Combine the Prior Art to Make Out a Prima  
Facie Case of Obviousness

The Examiner has rejected claims 47, 48 and 52-55 under 35 U.S.C. § 103(a) as being unpatentable over International Publication No. WO 99/13729 in view of International Publication No. WO 93/12660. Applicant respectfully disagrees.

An obviousness analysis begins in the text of section 103 with the phrase "at the time the invention was made." For it is this phrase that guards against entry into the "tempting but forbidden zone of hindsight when analyzing the patentability of claims pursuant to that section. See Loctite Corp. v. Ultraseal Ltd., 781 F.2d 861, 873, 228 U.S.P.Q. 90, 98 (Fed. Cir. 1985), overruled on other grounds by Nobelpharma AB v. Implant Innovations, Inc., 141 F.3d 1059, 46 U.S.P.Q.2d 1097 (Fed. Cir. 1998). Measuring a claimed invention against the standard established requires the often difficult but critical step of casting the mind back to the time of the invention, to consider the thinking of one of ordinary skill in the art, guided only by the prior art references and then-accepted wisdom in the field. See, e.g., W.L. Gore & Assoc., Inc. v. Garlock, Inc., 721 F.2d 1540, 1553, 220 U.S.P.Q. 303, 313 (Fed. Cir. 1983). Close adherence to this methodology is especially important in the case of less technologically complex inventions, where the very ease with which the invention can be understood may

prompt one "to fall victim to the insidious effect of a hindsight syndrome wherein that which only the inventor taught is used against the teacher." Id.

The best defense against the subtle but powerful attraction of a hindsight-based obviousness analysis is rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references. See, e.g., C.R. Bard, Inc. v. M3 Sys., Inc., 157 F.3d 1340, 1352, 48 U.S.P.Q.2d 1225, 1232 (Fed. Cir. 1998) (describing "teaching or suggestion or motivation [to combine] as an essential evidentiary component of an obviousness holding") combining prior art references without evidence of such a suggestion, teaching, or motivation simply takes the inventor's disclosure as a blueprint for piecing together the prior art to defeat patentability - the essence of hindsight. See, e.g., Interconnect Planning Corp. v. Feil, 774 F.2d 1132, 1138, 277 U.S.P.Q. 543, 547 (Fed. Cir. 1985) ("The invention must be viewed not with the blueprint drawn by the inventor, but in the state of the art that existed at the time.") In this case, the Examiner has fallen into the hindsight trap.

Evidence of a suggestion, teaching or motivation to combine may flow from the prior art references themselves, the knowledge of one of ordinary skill in the art, or, in some cases, from the nature of the problem solved, although the suggestion more often comes from the teachings of the pertinent references. Rouffet, 149 F.3d at 1355. The range of sources available does not diminish the requirement for actual evidence. That showing must be clear and particular. See, e.g., C.R. Bard, 157 F.3d at 1352. Broad conclusory statements regarding the teaching of multiple references, standing alone, are not evidence. McElmurry v. Arkansas

Power & Light Co., 995 F.2d 1576, 1578, 27 U.S.P.Q.2d 1129, 1131 (Fed. Cir. 1993) ("Mere denials and conclusory statement, however, are not sufficient to establish a genuine issue of material fact.").

The Examiner's rejection was based on the conclusion that "it would have been obvious to one of ordinary skill in the art to incorporate the collagen and pre-treatment of WO 93/12660 into the invention of WO 99/13729 since both are directed to sausage making". (Final Office Action, pages 3 and 6). While the Examiner's statement may identify the relevant art, i.e. sausage making, this rationale fails to identify any teaching, suggestion, or motivation to combine found in the references or in the knowledge generally available to those skilled in the art. The Examiner's rejection, while providing a reference-by-reference, limitation-by-limitation analysis, fails to demonstrate how the WO 93/12660 reference teaches or suggests its combination with WO 99/13729 to yield the claimed invention. For example, the Examiner has failed to identify the nature of the problem to be solved, the teachings of the prior art, or the knowledge of persons of ordinary skill in the art. In re Rouffet, 149 F.3d 1350, 1357, 47 U.S.P.Q.2d 1453, 1457-58 (Fed. Cir. 1998) (recognizing that the combination of the references taught every element of the claimed invention; however, without a motivation to combine, a rejection based on a *prima facie* case of obviousness was held improper). Further, the Examiner has not explained why, if it was obvious to make the proposed combination, that the co-extruded food product of WO 99/13729 (1999) did not combine the collagen and pre-coagulation treatment of WO 93/12660 (1993) when this option was readily available.

As set forth in Applicant's disclosure, WO 93/12660 teaches co-extruding the sausage string with a collagen layer and then passing the string of food product through a brining bath in which coagulation of the collagen takes place. (Specification, page 2, lines 17-23). Subjecting the collagen layer to a coagulating treatment while extruding the string of food product removes water from the collagen gel and promotes crosslinking of the collagen to harden the casing. (WO 93/12660, page 3, lines 16-21). The drawback of the method disclosed by WO 93/12660 is that the sausage links have uneven diameters because the string of food product is cumbersome to work with and therefore it is difficult to subject the entire string of food product to a consistent brining bath coagulation treatment. (Specification, page 2, lines 25-29).

As a result of the drawbacks of the method disclosed in WO 93/12660, those skilled in the art developed an improved sausage extruding machine to better handle the string of sausage, as described in International Publication No. WO 98/16115 (U.S. Pat. No. 5,843,504 to Kobussen et al.). (Specification, page 2, line 31 through page 3, line 13). As with WO 93/12660, the WO 98/16115 publication teaches subjecting the string of food product to the coagulation treatment, which still does not guarantee a uniform sausage diameter because of the difficulty in subjecting the entire string to a consistent brining bath. (Id. at page 3, lines 11-13).

Accordingly, there was a need in the art to develop an even better method of making sausage that ensured a consistent outer diameter of the links. This problem was solved by Applicant, who found that subjecting the sausage to a second coagulation treatment after separating the string of

food product into separate units would allow for a uniform distribution of coagulants to ensure separate units of consistent outer diameter. Merely subjecting the separate links to a post-extrusion treatment, such as the liquid smoke treatment of WO 99/13729, has little more effect than improving the taste of the sausage and fails to achieve the benefits of a pre-treatment, including crosslinking of the collagen. (WO 99/13729, page 12, lines 34-37).

Upon reading the prior art, there is nothing in the WO 93/12660 reference that teaches or suggests its combination with WO 99/13729 to arrive at Applicant's solution. Therefore, because the Examiner has not particularly identified any suggestion, teaching, or motivation to combine the prior art references, the Examiner's rejection based on obviousness cannot stand.

## 2. The Application Particularly Points Out and Distinctly Claims that Which Is Regarded as the Invention

The Examiner has rejected claim 57 under 35 U.S.C. § 112 for being indefinite and under 35 U.S.C. § 101 for being an improper definition of a process. Applicant respectfully disagrees.

Definiteness is not determined in a vacuum. Rather, definiteness should be determined in view of the content of a disclosure, the teachings of the prior art, and the claim interpretation that would be given by those skilled in the art. MPEP § 2173.02.

Dependent claim 57 requires, in part, the use of dry collagen with the collagen gel of dependent claim 49 to form the collagen layer of independent claim 47. This is consistent with Applicant's disclosure, which states that

"dry collagen is advantageously added to the collagen gel during the co-extrusion." (page 8, lines 10-11). Adding dry collagen to the collagen gel increases the percentage of dry substance content in the collagen layer, which increases the fibrous structure and therefore strength of the extruded food product. (page 8, lines 13-21).

The Examiner has stated that the use of dry collagen is indefinite because "it is unclear what method/process applicant is intending to encompass." (Final Office Action, page 2). Further, the Examiner has stated that the use of dry collagen without setting forth a step results in an improper definition of a process. Id.

As stated above, Applicant is adding the dry collagen of claim 57 to the collagen gel of claim 49 to arrive at the collagen layer extruded in independent claim 47. Applicant is not merely claiming the general use of dry collagen. Rather, claims 49 and 57 are specific that Applicant is using dry collagen with collagen gel to form a collagen layer. Even if Applicant's use of dry collagen were to be considered overly broad, breadth should not be equated with indefiniteness. In re Miller, 441 F.2d 689 (CCPA 1971).

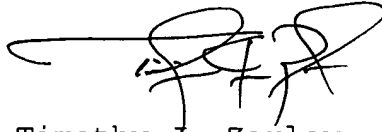
Accordingly, as claim 57 particularly points out and distinctly claims the use of dry collagen with the collagen gel in forming the collagen layer extruded as part of Applicant's claimed method, the Examiner's rejection should be withdrawn.

#### IX. Conclusion

For all the reasons stated above, Applicant respectfully requests that the Board reverse the conclusions of the Examiner and allow Applicant's claims to issue.

A check in the amount of \$165 has been included with this appeal brief. No other fees or extensions of time are believed to be due in connection with this response; however, consider this a request for any extension inadvertently omitted, and charge any additional fees to Deposit Account 50-2098.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'TJZ', with a long horizontal line extending to the left.

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Attachment: Appendix A



## APPENDIX A

### Listing of Claims:

Claims 31-46. (Withdrawn).

Claim 47. (Previously amended) A method for manufacturing a co-extruded food product comprising the steps of:

- a. co-extruding a continuous string of a food product which is provided all around with a substantially uniform collagen layer;
- b. subjecting the collagen layer to a coagulating treatment under the influence of coagulants, whereafter the final co-extruded food product is obtained; and
- c. separating the string of food product into separate units before subjecting these to the coagulation treatment.

Claim 48. (Previously presented) The method as claimed in claim 47, wherein the method comprises the further step of:

Subjecting the food product to a pre-coagulation treatment after the co-extrusion step, wherein the collagen layer is brought into contact with pretreatment coagulants.

Claim 49. (Previously presented) The method as claimed in claim 47, wherein the collagen layer is formed from collagen gel to which dry collagen is added.

Claim 50. (Previously presented) The method as claimed in claim 49, wherein the dry collagen is added to the collagen gel during the co-extrusion.

Claim 51. (Previously presented) The method as claimed in claim 49, wherein the dry collagen has a fibrous structure.

Claim 52. (Previously presented) The method as claimed in claim 47, wherein the collagen layer around the final co-extruded food product comprises 6.5 to 15% by weight collagen.

Claim 53. (Previously presented) The method as claimed in claim 47, wherein the collagen layer around the final co-extruded food product comprises 7 to 12% by weight collagen.

Claim 54. (Previously presented) The method as claimed in claim 47, wherein the collagen layer around the final co-extruded food product comprises 8 to 10% by weight collagen.

Claim 55. (Previously presented) The method as claimed in claim 47, wherein the coagulants comprise a carbonate solution, a liquid smoke, a potassium phosphate solution or mixtures thereof.

Claim 56. (Previously presented) The method as claimed in claim 47, wherein the coagulants comprise dipotassium monohydrogen phosphate.

Claim 57. (Previously amended) The method as claimed in claim 49 further comprising the use of dry collagen.